

Balancing Catch Share Optimization with Bycatch Minimization

Catch Shares and National Standard 9

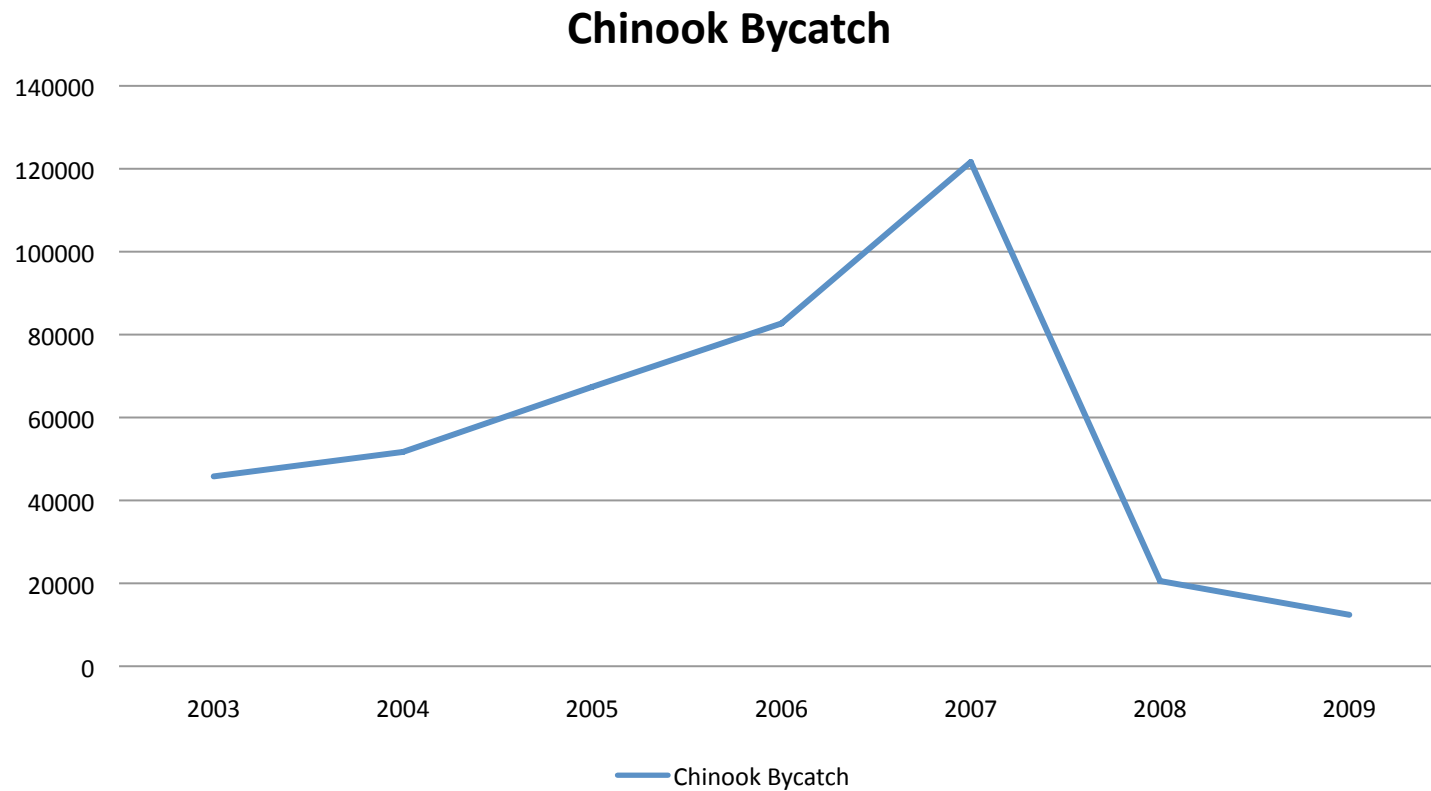
Management Goals of Catch Shares -

- Eliminate overfishing
- Eliminate race-for-fish or derby fishing behavior
- Promote more precise catch accounting to meet ACLs
- **Bycatch reduction**
- Improved ecosystem functions
- Improved socio-economic conditions

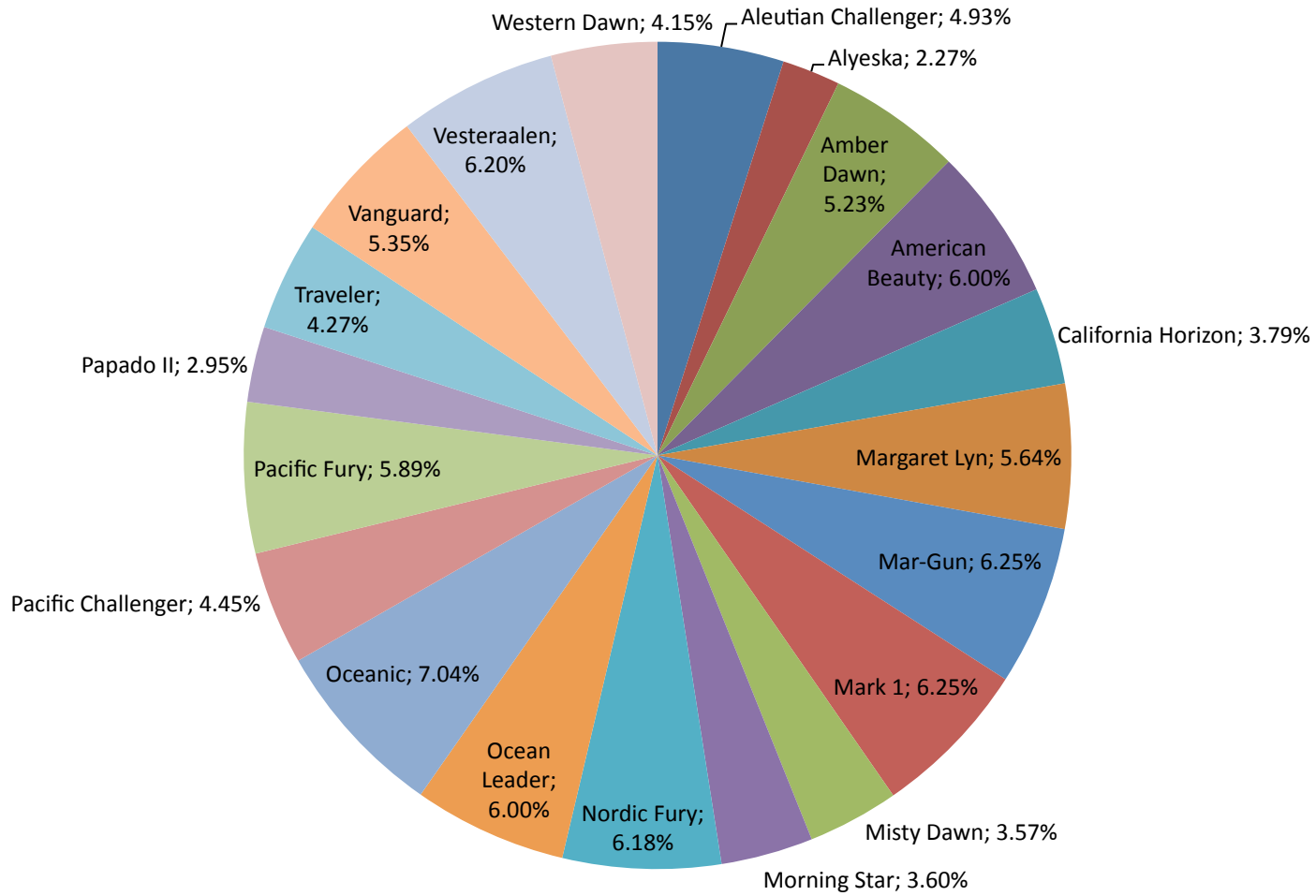
National Standard 9

(9) Conservation and management measures shall, to the extent practicable, (A) **minimize bycatch** and (B) to the extent bycatch cannot be avoided, minimize the mortality of such bycatch.

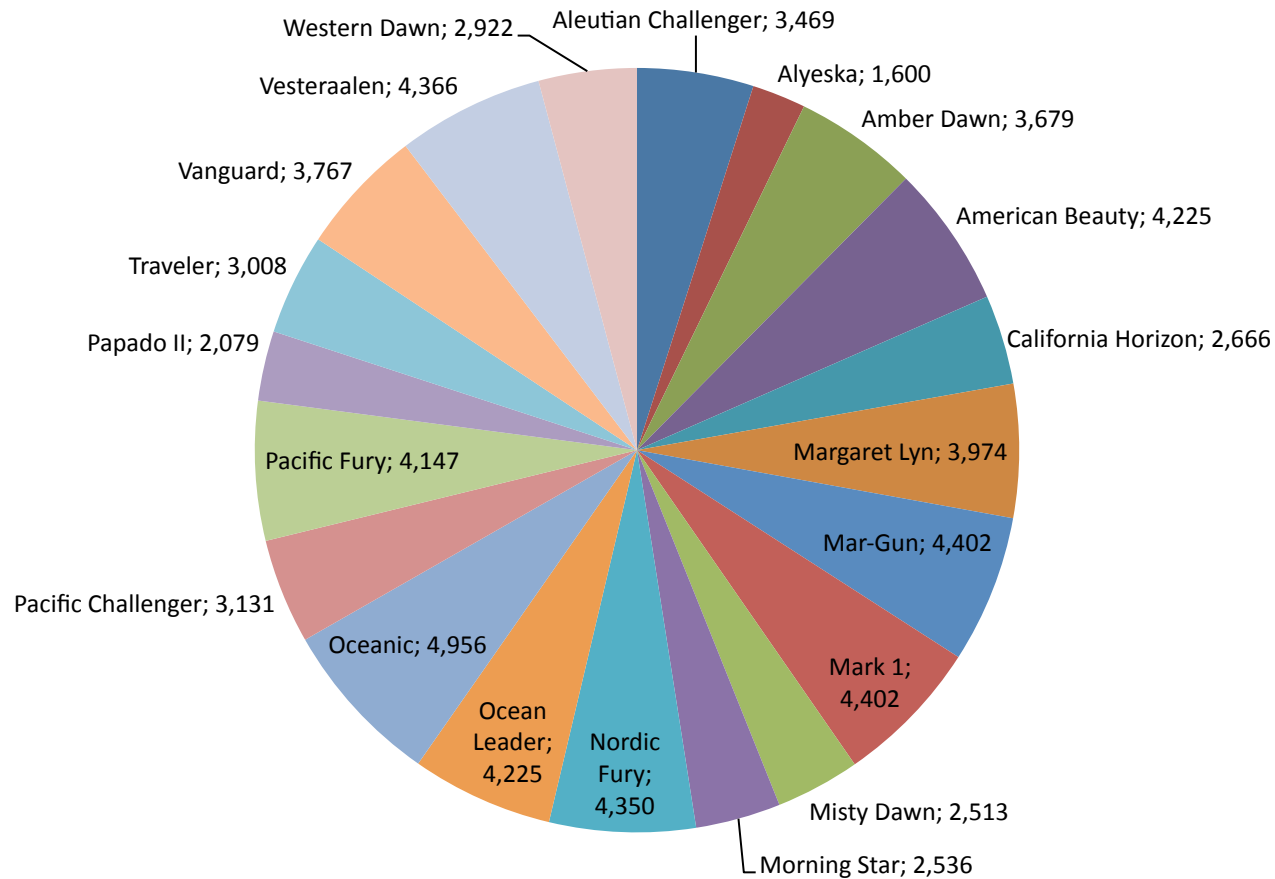
Variability of Chinook Bycatch 2003 - 2009



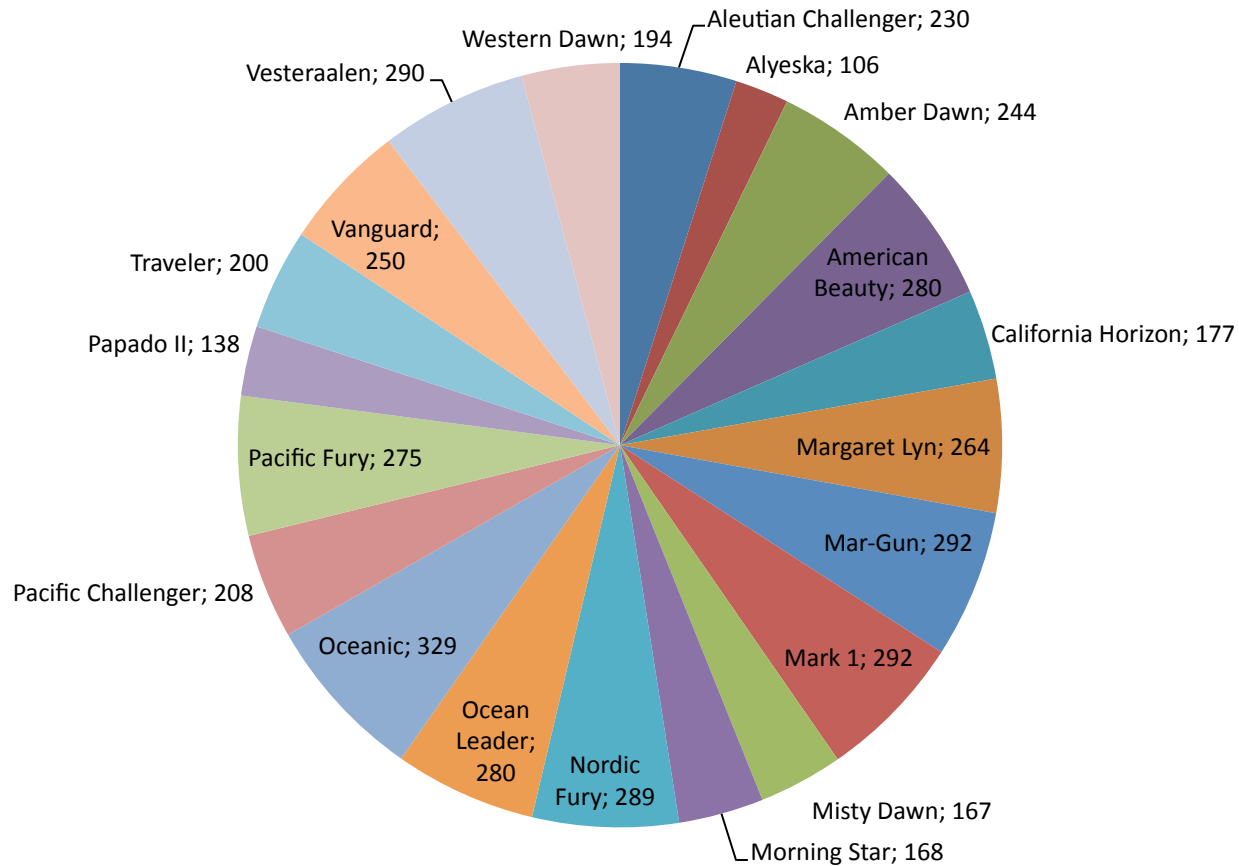
Allocation of Shares to AFA Mothership Sector



Metric Tons of Pollock – Share of 815k MT Quota



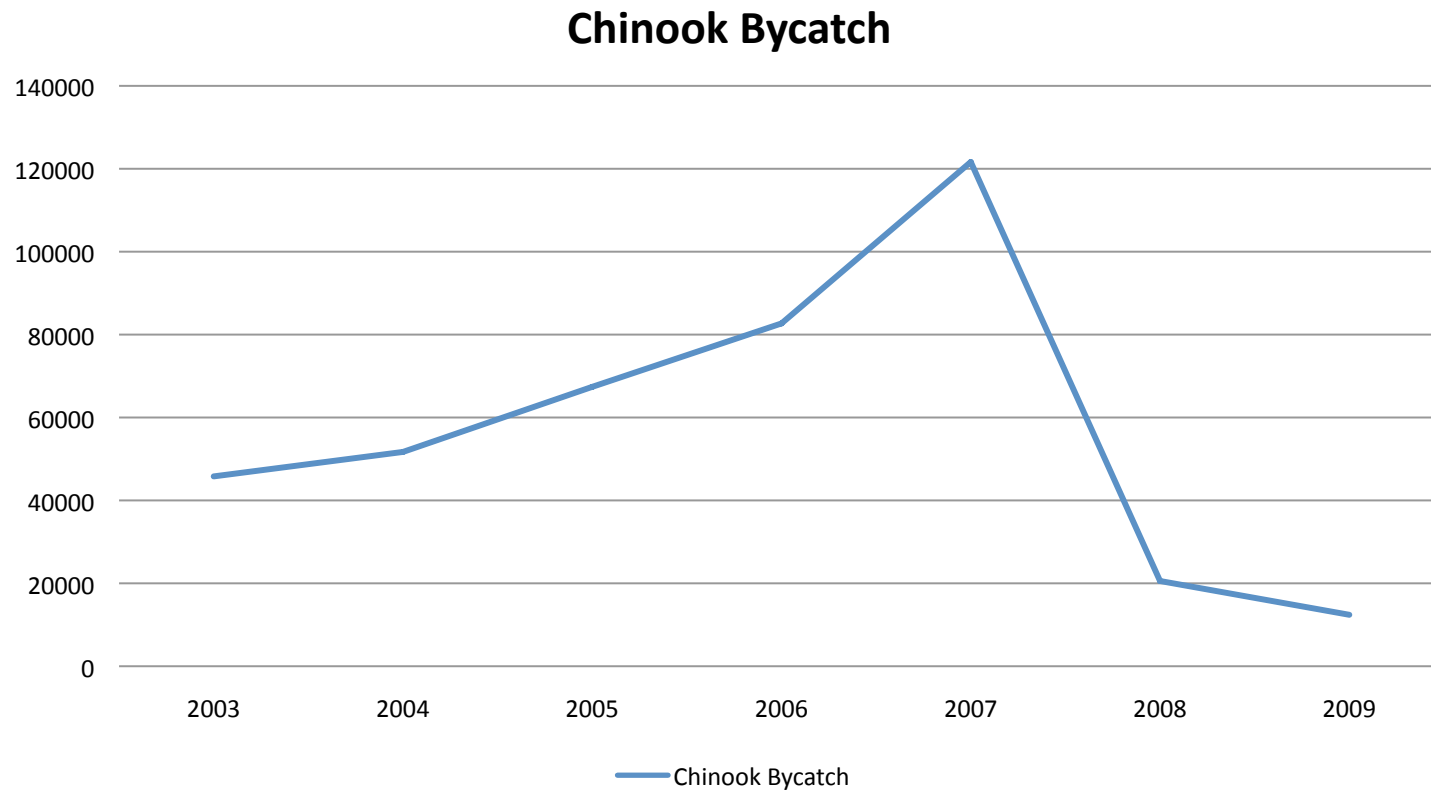
Chinook Salmon – Share of 60,000 Chinook Cap



Optimize vs. Minimize

- The economically efficient strategy is to harvest pollock shares in a manner that maximizes value and minimizes costs while modifying behavior to avoid Chinook salmon only enough to insure that one's share of the cap is not exceeded.
- N.S. 9 sets a higher bar – Harvest pollock shares while reducing Chinook salmon bycatch to the extent practicable.

Variability of Chinook Bycatch 2003 - 2009



Challenge to Council

Develop bycatch measures that will:

- Establish a “hard cap” on Chinook mortality in the pollock fishery;
- Allow for the harvest of the pollock quota (achieve OY);
- Reduce annual Chinook bycatch below “hard cap” to the extent practicable.

Council Action

- Set a “hard cap” at 60,000 Chinook;
- Encourage the development of IPAs (Incentive Plan Agreements) among industry sectors and cooperatives;
- Establish performance standard below 60,000 Chinook cap (47,000 Chinook);
- Lower cap for IPA participants that do not meet performance standard;
- Set cap at 29,000 for sectors or cooperatives that do not participate in incentive plan agreement.

Catcher Vessel IPA – Salmon Savings Incentive Program

Primary Design Objective – Develop a program that ultimately puts more pollock into the hands of “clean” fishermen, not more Chinook salmon into the hands of “dirty” fishermen, by creating incentives to fish in ways, places, and times that result in Chinook bycatch avoidance.

Catcher Vessel IPA – Salmon Savings Incentive Program

- Each vessel receives its share of “performance standard” (base cap).
- For every 2.3 Chinook “saved” (below performance standard), vessel earns one savings credit to be used once in next three years.
- Vessels establish “insurance” by avoiding Chinook and establishing savings credits for use in a year when Chinook encounters are relatively high.

Transferability of Chinook Base Cap and Savings Credits

- Base cap may be transferred but is “taxed” (e.g., transferee acquires 20 salmon but may only use 15, the other 5 stay in the water).
- Tax percentage depends on overall use of Chinook relative to pollock harvest.
- Savings may not be transferred. They must be earned.

Amendment 20 - H&G Fleet Crab and Halibut Bycatch Reduction

- H&G (Head & Gut) fleet catch share program establishes crab and halibut bycatch caps for that sector.
- In design of catch share program, the Council established stair-step reductions of halibut caps.

Conclusions -

- Catch shares can be an effective tool for optimizing efficiency.
- A “closed class” of harvesters receiving its own bycatch “cap” for non-catch share species can, through a cooperative agreement or contract, create “catch shares” of those bycatch caps.
- Councils should consider additional incentives to reduce bycatch of non-catch share species to insure that bycatch is reduced to the extent practicable.
- Many incentives that cannot be implemented through regulation can be implemented through cooperative agreements.